

Material Designation

| | |
|------------|--------|
| GB | T2 |
| UNS (ASTM) | C11000 |
| JIS | C1100 |

Chemical Composition

| | |
|----|-----------|
| Cu | ≥ 99.90 % |
| Fe | ≤ 0.005% |
| Pb | ≤ 0.005% |
| S | ≤ 0.005% |

Typical Applications

- Main material for general electrical applications
- Stamped parts
- Transformer coils
- Cable strip
- Heat sinks

Process performance

| | |
|---------------------------|---------------|
| Excellent cold processing | Excellent |
| plating | Excellent |
| Hot tin plating | excellent |
| Soft soldering | good. |
| Resistance welding | less suitable |
| Gas protection welding | less suitable |

Physical properties (room temperature)

| | |
|-----------------------------------|---------------------------------|
| Conductivity | 97 %IACS. |
| Thermal conductivity | 388 W/(m.K) |
| The thermal expansion coefficient | 17.64 10⁻⁶/K. |
| The density | 8.89 g/cm³ |
| Elastic modulus | 115 GPa. |
| Specific heat capacity | 0.386 J/(g.K) |
| Poisson's ratio | 0.34 |

Mechanical Properties

| Temper | | M | Y4 | Y2 | Y | T |
|------------------|---------------------|-------|---------|---------|---------|-------|
| Tensile Strength | R _m MPa | ≥ 195 | 215-275 | 245-345 | 290-380 | ≥ 350 |
| Elongation | A _{50mm} % | ≥ 30 | ≥ 25 | ≥ 8 | ≥ 3 | — |
| Hardness | HV | ≤ 70 | 60-90 | 80-110 | 90-12 | ≥ 110 |

Thickness Tolerance

| Thickness (mm) | 0.08-0.15 | >0.15-0.20 | >0.2-0.3 | >0.3-0.4 | >0.4-0.6 | >0.6-0.8 |
|----------------|-----------|------------|----------|----------|----------|----------|
| Tolerance (mm) | ±0.0025 | ±0.004 | ±0.005 | ±0.0075 | ±0.01 | ±0.0125 |
| Thickness (mm) | >0.8-1.2 | >1.2-1.5 | >1.5-2.0 | >2.0-2.6 | >2.6-3.0 | >3.0-4.0 |
| Tolerance (mm) | ±0.015 | ±0.02 | ±0.025 | ±0.03 | ±0.04 | ±0.05 |